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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,189	05/14/2001	Geoffrey B. Rhoads	P0376	9322
23735	7590	04/20/2005		
DIGIMARC CORPORATION 9405 SW GEMINI DRIVE BEAVERTON, OR 97008			EXAMINER SONG, HOSUK	
			ART UNIT 2135	PAPER NUMBER

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/858,189

Applicant(s)

RHOADS ET AL.

Examiner

Hosuk Song

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-14 remain rejected under 35 U.S.C. 103(a) as being unpatentable over McAuliffe et al.(US 5,838,790)in view of Iwamura(US 6,425,081).

Claim 1: McAuliffe's patent teaches obtaining and checking the integrity of the fingerprint data in (col.8,lines 7-15). McAuliffe discloses if the check leaves doubt about the fingerprint data obtained, then recalculating fingerprint data from contents of the file and transmitting the fingerprint data to a database in (col.8,lines 12-17). McAuliffe does not specifically disclose obtaining fingerprint data from a file header associated with a file. Iwamura's patent discloses in the verification process where fingerprint data or also known as hash value is embedded and obtained from a header in (col.21,lines 41-53). It would have been obvious to person of ordinary skill in the art at the time invention was made to embed or obtain fingerprint data from a file header, as taught in Iwamura with data embedding method disclosed in McAuliffe because when fingerprint data is embedded in a image/data, it distorts original data and error tends to occur by fingerprint data. Therefore, embedding fingerprint data in a non-display field such as header file is highly desirable. Further, by separating fingerprint data from original data, fingerprint data is protected and well secured and allows for efficient data transmission with minimal interference. Claim 1 is rejected.

Claim 2:McAuliffe discloses accessing a database record corresponding to the transmitted fingerprint data, to obtain associated information and returning at least some of

associated information to a computer device from which the fingerprint data was transmitted in (col.9,lines 24-37). Claim 2 is rejected.

Claim 3: McAuliffe discloses file contents comprise audio in (col.2,lines 36-39).

Claim 3 is rejected.

Claim 4: McAuliffe does not specifically disclose checking a digital signature. Iwamura's patent discloses checking a digital signature in (col.33,lines 45-49). It would have been obvious to person of ordinary skill in the art at the time invention was made to employ a digital signature, as taught in Iwamura with fingerprint checking disclosed in McAuliffe in order to assure the data recipient that the original source is authentic and legitimate which allows secure and reliable way to authenticate its documents and its source. Further,digital signature protects against repeated usage,forged document and repudiation. Claim 4 is rejected.

Claim 5: McAuliffe checking includes decrypting fingerprint data and authenticating the decrypted data in (col.7,lines 15-25). Claim 5 is rejected.

Claims 6,7: Neither McAuliffe or Iwamura specifically discloses applying an inverse modification to the fingerprint in the header prior to decrypting. Official notice is taken that applying an inverse modification to the fingerprint in the header prior to decrypting is well known in the art. One of ordinary skill in the art would have been motivated to employ inverse modification or also known as Modified Discrete Cosine Transform/inverse Modified Discrete Cosine Transform in order to reduce computation steps to produce output data. Inverse transformation allows less latency between the end of decoding and the start of the data output operation therefore it enhances speed of data processing. Since, inverse modification is applied prior to decrypting, it allows decryption process to run faster thus minimizing data error rate. Claims 6,7 are rejected.

Claim 8: McAuliffe's patent teaches obtaining and checking the integrity of the data in (col.8,lines 7-15). McAuliffe discloses if the check leaves doubt about the data obtained, then recalculating fingerprint data from contents of the file and transmitting the data to a database in (col.8,lines 12-17). McAuliffe does not specifically disclose watermark data. Iwamura patent teaches watermark data in (fig.1,2). It would have been obvious to person of ordinary skill in the art at the time invention was made to use watermark data, as taught in Iwamura with data embedding method disclosed in McAuliffe because watermark data is preserved if the data is manipulated by processes such as compression or cropping. One of ordinary skill in the art would have been motivated to use watermark because watermark data is hardly visible and/or audible, it is difficult for hackers to remove by unauthorized means yet it is easily detectable through an authorized or intended procedure. McAuliffe does not specifically disclose obtaining watermark data from a file header associated with a file. Iwamura's patent discloses in the verification process where data or hash value is embedded and obtained from a header in (col.21,lines 41-53). It would have been obvious to person of ordinary skill in the art at the time invention was made to embed or obtain data from a file header, as taught in Iwamura with data embedding method disclosed in McAuliffe because when data is embedded in a image/data, it distorts original data and error tends to occur by this event. Therefore, embedding watermark data in a non-display field such as header file is highly desirable. Further, by separating watermark data from original data, watermark data is protected and well secured and allows for efficient data transmission with minimal interference.

Claim 8 is rejected.

Claim 9: McAuliffe discloses accessing a database record corresponding to the transmitted data, to obtain associated information and returning at least some of associated information to a computer device from which the data was transmitted in (col.9,lines 24-37).

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McAuliffe does not specifically disclose watermark data. Iwamura patent teaches watermark data in (fig.1,2). It would have been obvious to person of ordinary skill in the art at the time invention was made to use watermark data, as taught in Iwamura with fingerprint data disclosed in McAuliffe because watermark data is preserved if the data is manipulated by processes such as compression or cropping. One of ordinary skill in the art would have been motivated to use watermark because watermark data is hardly visible and/or audible, it is difficult for hackers to remove by unauthorized means yet it is easily detectable through an authorized or intended procedure. Claim 9 is rejected.

Claim 10: McAuliffe discloses file contents comprise audio in (col.2,lines 36-39). Claim 10 is rejected.

Claim 11: McAuliffe does not specifically disclose checking a digital signature. Iwamura's patent discloses checking a digital signature in (col.33,lines 45-49). It would have been obvious to person of ordinary skill in the art at the time invention was made to employ a digital signature, as taught in Iwamura with fingerprint checking disclosed in McAuliffe in order to assure the data recipient that the original source is authentic and legitimate which allows secure and reliable way to authenticate its documents and its source. Further,digital signature protects against repeated usage,forged document and repudiation. Claim 11 is rejected.

Claim 12: McAuliffe checking includes decrypting data and authenticating the decrypted data in (col.7,lines 15-25). McAuliffe does not specifically disclose watermark data. Iwamura patent teaches watermark data in (fig.1,2). It would have been obvious to person of ordinary skill in the art at the time invention was made to use watermark data, as taught in Iwamura with fingerprint data disclosed in McAuliffe because watermark data is preserved if the data is manipulated by processes such as compression or cropping. One of ordinary skill in the art would have been motivated to use watermark because watermark data is hardly visible and/or

audible, it is difficult for hackers to remove by unauthorized means yet it is easily detectable through an authorized or intended procedure. Claim 12 is rejected.

Claim 13,14: Netiher McAuliffe or Iwamura specifically discloses applying an inverse modification to the data in the header prior to decrypting. Official notice is taken that applying an inverse modification to the fingerprint in the header prior to decrypting is well known in the art. One of ordinary skill in the art would have been motivated to employ inverse modification or also known as Modified Discrete Cosine Transform/inverse Modified Discrete Cosine Transform in order to reduce computation steps to produce output data. Inverse transformation allows less latency between the end of decoding and the start of the data output operation therefore it enhances speed of data processing. Since, inverse modification is applied prior to decrypting, it allows decryption process to run faster thus minimizing data error rate. Motivation to use watermark data discussed in claim rejection 10 above. Claims 13,14 are rejected.

Response to Applicant's Arguments

2. Applicant has argued that McAuliffe does not check the integrity of fingerprint data. Instead , McAuliffe checks the correspondence between fingerprint data and an advertisement. The advertisement may be suspect. The fingerprint data is not. In response: The examiner disagrees. McAuliffe does disclose checking the integrity of fingerprint data. It is based on checking the integrity of fingerprint data which determines whether advertisement file has been altered or not(see col.7,lines 21-33). McAuliffe disclose that fingerprint authentication where if calculated fingerprint is not the same as stored fingerprint of A, authentication fails(col.8,lines 7-14). Applicant has argued that McAuliffe is silent on transmitting the fingerprint data to a database[if the check leaves doubt about the fingerprint data]. In response: the examiner disagrees. McAuliffe specifically disclose transmitting fingerprint data to a database if the check leaves doubt

about the fingerprint data in (col.8,lines 35-48). Applicant has argued that claim 8 requires "checking the integrity of the watermark data." The Action again cites the excerpt at col.8,lines 7-15 that deals with authenticating the advertisement, and terms it "checking the integrity of the data"(overlooking the "watermark" limitation in applicant's claims). In response: the examiner disagrees. Examiner did not overlooked watermark limitation in claim 8. It was specifically indicated in the previous office action that McAuliffe does not disclose watermarking. Iwamura's patent was cited for watermark limitation. Examiner has provided sufficient motivation in combining McAuliffe with Iwamura's patent in making rejection of claim 8.

Objection

3. Applicant has included a paragraph at the end of the specification which states, "To provide a comprehensive disclosure without unduly lengthening this application, applicant's incorporate by reference the patents and patent applications cited above. It is applicant's express intention to teach that the methods detailed herein are applicable in connection with the technologies and applications detailed in these cited patents and applications."

The Examiner objects to above passage made by the applicant. The attempt to incorporate subject matter into the application by reference is improper. See MPEP 608.01(p) Completeness "I. Incorporation by Reference".

IDS

4. The IDS references include copies which are double sided. Applicant is advised to submit these references in a single sided form.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

USPTO Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hosuk Song whose telephone number is 571-272-3857. The examiner can normally be reached on Tue-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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